

Digital Compression Load Cell

FEATURES

- Capacities: 30, 40 and 50 ton
- Digital output via RS-485 or RS-422 interface
- Self-aligning, stainless steel single column
- Hermetically sealed, IP66 and IP68
- Certified to OIML R-60, 4000d
- Internal diagnostics
- Internal lightning protection
- Maximum transmission distance 1200m
- **Optional**
 - Self-aligning mount available
 - Operation manual - SLC

APPLICATIONS

- Weighbridges
- Silo hopper weighing

DESCRIPTION

The DSC, Digital Single Column, is a stainless steel compression load cell with a digital output.

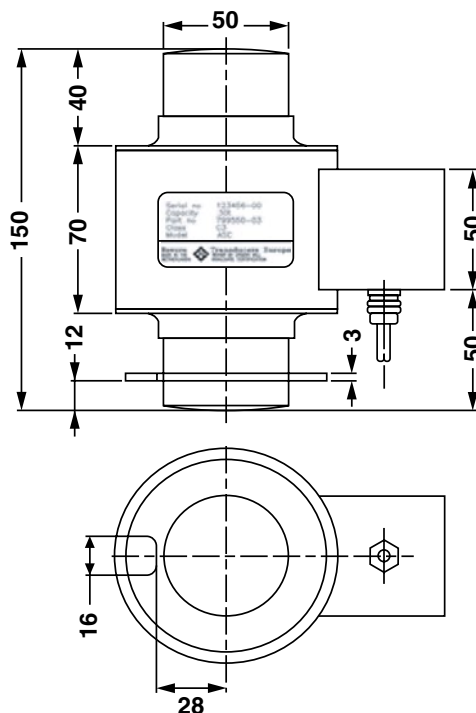


This digital output enables the user to communicate with each DSC independent of the others in the system, thus offering advantages in system setup, system control, corner correction, fault finding and load cell replacement.

This product is suitable for use in road and rail weighbridges and process weighing applications.

The welded construction and built-in surge protection ensure that this product can be used successfully in harsh environments.

OUTLINE DIMENSIONS in millimeters



Cable specifications

Cable length:	15m
Excitation +	Green
Excitation -	Black
Rx +	Yellow
Rx -	Blue
Tx +	Red
Tx -	White
Shield	Transparent

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SPECIFICATIONS				
PARAMETER	VALUE			UNIT
Standard capacities (E_{max})	30, 40, 50			ton
Accuracy class according to OIML R-60	Non-approved	C3	C4	
Maximum no. of verification intervals (n)		3000	4000	
Minimum verification interval ($V_{min}=E_{max}/Y$)		$E_{max}/6,000$	$E_{max}/8,000$	
Minimum verification interval, type MR		$E_{max}/15,000$	$E_{max}/20,000$	
Rated output (FSO)	240,000			counts
Tolerance on rated output	200			±counts
Zero balance	200			±counts
Combined error	0.0500	0.023	0.018	±% FSO
Non-repeatability	0.070	0.035	0.026	±% FSO
Minimum dead load output return	0.0500	0.017	0.013	±% FSO
Minimum dead load output return, type MI7.5	-	0.0067	0.0067	±% FSO
Creep error (30 minutes)	0.0600	0.025	0.0184	±% FSO
Creep error (20–30 minutes)	0.0200	0.0053	0.0039	±% FSO
Temp. effect on min. dead load output	0.0250	0.0117	0.0088	±% FSO/5°C
Temp. effect on min. dead load output MR		0.0047	0.0035	±% FSO/5°C
Temperature effect on sensitivity	0.0250	0.0088	0.0065	±% FSO/5°C
Compensated temperature range	-10 to +40			°C
Operating temperature range	-40 to +80			°C
Storage temperature range	-40 to +90			°C
Minimum dead load	0			% E_{max}
Safe dead load	150			% E_{max}
Ultimate load	300			% E_{max}
Deflection at E_{max}	0.50			mm
Excitation voltage	12.5 to 18.0			VDC
Recommended excitation voltage	15			VDC
Maximum current consumption	80			mA
Start up current	150			mA
Insulation resistance	>5000			MΩ
Element material (DIN)	Stainless steel 1.4542			
Sealing (DIN 40.050 / EN60.529 / IEC 529)	IP66 and IP68			
Signal update per second	25			
Baudrate	9600			Bits/s
Transmission type	Asynchronous serial transmission			
Start bits	1			
Data bits	7			
Stop bits	1			
Parity	Odd			
Maximum transmission cable length	1200			m
Data transmission interface	RS422 (4 communication wires) RS485 (2 communication wires)			

FSO—Full Scale Output

Correct mounting of the load cells is essential to ensure optimum accuracy and performance. Further information is available upon request.

All specifications subject to change without notice.